

REMARKS/ARGUMENTS

The Examiner is thanked for the review of the application.

Claims 1-14, 18-23 remain in this application. Independent Claims 1 and 8 have been amended. No new matter has been added.

In the Office Action dated February 17, 2006, regarding the Specification, the Examiner has stated that "the current specification indicates that this application is a Continuation-in-part to co-pending U.S. Patent Application No. 10/007,002 filed November 30, 2001, [SC]RULE RELAXATION AND SUBSET OPTIMIZATION SYSTEM". However, after reviewing specifications of both applications the examiner came to conclusion that U.S. Patent Application No. 10/007,002 does not have adequate support for the claimed subject matter of the current patent application. Therefore, the current specification is not entitled for the benefit of the earlier filing date, and the effective date for the current application is its filing date 3/05/2002."

Applicant respectfully submits that U.S. Patent Application No. 10/007,002 provides partial support for independent Claims 1 and 8 as amended. For example, support for "demand group structure of the plurality of products is based on substitutable products" can be found on page 8, lines 4-8 of the above referenced Application No. 10/007,002.

In the Office Action dated February 17, 2006, the Examiner has rejected Claims 18 and 21 under 35 U.S.C. 112, second paragraph, stating that they are "indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 18 and 21 are confusing, because the following recitation: 'wherein the at least one constrain prohibits two stores of the plurality of stores from being in the same cluster' is in contradiction to parent Claims 5 and 12, which recite: 'placing stores that meet the constraints and with the closest optimal combinations in the same cluster of the plurality of store clusters.'"

Applicant submits that Claims 18 and 21 provide exceptions to the general rule, thereby increasing flexibility of the invention by allowing the user to “override” initial computer-generated recommendations. For example, the invention may initially recommend that Store A in neighborhood X be clustered with Store B in neighborhood Y based on closeness of optimized prices. However, Store A of neighborhood X and Store B of neighborhood Y may be located in locations with very different demographics and hence should not be clustered together for marketing or regulatory reasons.

The Examiner has also rejected Claims 1-7 and 18-20 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding these claims the Examiner has stated that “the claims, as currently recited, appear to be directed to nothing more than a series of steps including collecting, providing, creating and re-optimizing data (prices) without any useful, concrete and tangible result and are therefore deemed to be non-statutory. While these numbers may be concrete and/or tangible, there does not appear to be any useful result.” The Examiner also stated that regarding “Claims 1-7 and 18-20 the invention, as defined by the claims and as best understood merely manipulate an abstract idea or perform a purely mathematical algorithm without any limitation to a practical application in the technological arts. The invention is implemented on a computer; therefore, the invention is directed to the technological arts. However, the claimed invention just manipulates data representing prices. The invention does not require physical acts to be performed outside the computer independent of and following the steps to be performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and result in the object having a different physical attribute or structure.”

Applicant submits that the present invention as claimed is statutory in view of *Ex Parte Lundgren*, Appeal No. 2003-2088, Application 08/093,516 (Precedential BPAI opinion September 2005), and further since the generation of optimized prices is indeed a very useful result in that it can greatly increase the profit margin of a retailer, especially in businesses such as supermarkets where the typical net profit margins are very small.

The Examiner has also rejected Claims 1-14 and 18-23 under 35 U.S.C. 103(a) as being unpatentable over Woo et al. (US 6,910,017) in view of Jameson (US 6,219,649).

Regarding Claims 1 and 8, the Examiner has stated that, "Woo et al. (Woo) teaches a computer-implemented method and system for optimizing prices, comprising: collecting store specific information from a plurality of stores (C. 3, L. 64-67; C. 4, L. 1-47); providing optimized combinations including optimized prices for a plurality of products for each individual store of the plurality of stores based on the store specific information wherein the optimized prices are generated under the demand, cost and optimization rules (modeling equation and algorithm) constrains (C. 4, L. 1-47; C. 5, L. 65 – C. 6, L. 60; C. 7, L. 58-65); creating a plurality of store clusters from the plurality of stores based on the closeness of the optimal combinations (aggregating historical data into item classes and subclasses in accordance with an item hierarchy/parameter (C3 L64-67, C4 L1-47), and using said aggregated data, including demand and cost of sales information, to determine optimal pricing information) (C. 2, L. 53-67; C. 3 L. 1-63; C. 9, L. 15-38). While method steps disclosed in Woo indicate a continuation of the method, Woo does not explicitly teach re-optimizing step for re-optimizing prices for said store clusters. Jameson teaches a computer-implemented method and system for price optimization, comprising: conducting initial price optimization to generate individual optimized scenarios (allocations) based on collected data and objective functions (specified parameters or constraints); grouping into clusters said allocations and identifying the allocations within each cluster that perform best against the scenarios within the cluster (C. 5, L. 41-49); and re-optimizing said individual scenarios with their objective functions for deviating from the average allocation (C. 3, L. 48-57; C. 9, L. 20-45). Furthermore, FIG. 2 in Jameson shows how individual-scenario optimizations can serve as good starting points for finding an overall optimal allocation and how clustering can facilitate optimization (C. 7, L. 60-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Woo to include re-optimizing step for re-optimizing prices for said store clusters, as disclosed in Jameson, because it would advantageously allow to conduct price optimization considering uncertain constraints (Jameson; C. 5, L. 16-18)."

Base Claims 1 and 8 have been amended to recite “creating a plurality of store clusters from the plurality of stores based on the closeness of the optimized prices of the plurality of products for each individual store, based on store specific information, and based on demand group structure of the plurality of products, and wherein the demand group structure of the plurality of products is based on substitutable products”. Support for “demand group structure of the plurality of products is based on substitutable products” can be found on page 8, lines 4-8 of the U.S. Patent Application No. 10/007,002, which has been incorporated by reference. Base Claims 1 and 8 are both allowable since none of the cited references disclose nor suggest the invention as recited by Claims 1 and 8 as amended.

Regarding Claims 2, 3, 5-7, 9, 12-14, 18-22, 21-23, the Examiner has stated that Applicant should “see reasoning applied to Claims 1 and 8.” Regarding Claims 4 and 11 the Examiner has stated that “Woo teaches said method and system, further including assortment and promotion combinations (C. 5, L. 61-63; C. 7, L. 9-12).”

Dependent claims 2-7, 9-14, 18-23 which depend on their respective patentable parent Claims 1, 8 are allowable for at least the same reasons Claims 1, 8 are allowable. Hence, Examiner’s rejection of dependent Claims 2-7, 9-14, 18-23 are rendered moot in view of the amendment to independent Claims 1, 8.

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In sum, base Claims 1, 8 have been amended and are now believed to be allowable. Dependent claims 4, 5, 11, 12, 18-20 have been amended and are now believed to be allowable. Dependent claims 2-7, 9-14, 18-23 which depend therefrom are also believed to be allowable as being dependent from their respective patentable parent Claims 1, 8 for at least the same reasons. Hence, Applicants believe that all pending claims 1-14, 18-23 are now allowable over the cited art and are also in allowable form and respectfully request a Notice of Allowance for this application from the Examiner. Applicants hereby petitions for a one-month extension of time within which to respond to the referenced Office Action and enclose our Credit Card Payment Form authorizing the amount of **\$120.00** to cover the necessary fee. The commissioner is authorized to charge any additional fees that may be due to our Deposit Account No. 50-2766 (Order No. DEM1P010). Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at telephone number 925-570-8198.

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